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09/800,042	03/05/2001	Branden Clark Bickley	016295.0662	2780

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10/31/2003

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EXAMINER

SHECHTMAN, SEAN P

ART UNIT

PAPER NUMBER

2125

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,042

Applicant(s)

BICKLEY ET AL.

Examiner

Sean P. Shechtman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10 and 12-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10 and 12-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 20 October 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6,9,10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1, 2, 4-10, and 12-21 are presented for examination. Claims 3 and 11 have been cancelled. Claims 1, 8-10, and 15 have been amended.

Oath/Declaration

2. The supplemental declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required.

See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Deficiencies or inaccuracies relating to all the inventors or applicants (§§1.42, 1.43, or § 1.47) may be corrected with a supplemental oath or declaration signed by **all** the inventors or applicants.

Drawings

3. Objections are withdrawn due to the amendment.

Specification

4. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;

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- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claims 1, 2, 4-10, and 12-21 are directed towards displaying substantially real-time status information associated with using the one or more pieces of equipment. The specification fails to provide proper antecedent basis for the claimed subject matter.

Claim Objections

6. Claim 1 is objected to because of the following informalities:

Referring to claim 1, line 6, “the monitoring system”, should be rephrased “the remote monitoring system”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 4-10, and 12-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Referring to claims 1, 2, 4-10, and 12-21, applicant argues that the specification does set forth the specific test or set of factors to be used for the “ship criteria”, and that one of ordinary

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skill in the art would understand that different factors may be relevant for different applications without requiring undue experimentation to implement the claimed invention. Applicant goes on to teach attributes relevant to the ship criteria for one or more example embodiments.

Examiner respectfully notes those portions cited by applicant in support of the above argument. Details of said portions specifically relate to “an order fulfillment requirement or criteria”, “filling an order by an order managed by order management source 303”, and “order fulfillment of products” on page 16, lines 10-20, page 20, lines 11-26, and page 26, line 14 – page 27, line 12 of the instant specification.

In response, examiner respectfully asks, if the shipping criteria is taught in those cited portions, what is the order fulfillment criteria? Moreover, applicant has not clearly distinguished the shipping criteria with the order fulfillment criteria as clearly seen in page 20, line 20 of the instant specification, wherein reference is made to “an order ship criteria”. Examiner respectfully asks, does this embodiment teach the order criteria and shipping criteria as the same criteria, and if so, when are they the same and when are they different?

Examiner respectfully submits that one of ordinary skill in the art would not understand when such a shipping/order fulfillment criteria was met, or the scope of the claimed shipping criteria.

8. Claims 1, 8, and 15, are directed towards determining the operating status of whether a piece of equipment is fully functional or whether a piece of equipment is inoperable relative to a ship criteria. Examiner respectfully submits that the term “relative” is not definite in view of the general guidelines contained in the specification and the rest of the claims.

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9. Claims 1, 2, 4-10, and 12-21 are directed towards displaying substantially real-time status information associated with using the one or more pieces of equipment. Examiner respectfully submits that the term “substantially” is not definite in view of the general guidelines contained in the specification and the rest of the claims. Moreover, the specification fails to provide any guidelines as to what would be considered “substantially real-time”.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 2, 4, 6-9, 14-16, 18, and 21, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,336,053 to Beatty.

Referring to claims 1, 6, 8, and 15, Beatty discloses a system, method and computer product, for monitoring resources within a build to order manufacturing facility (Col. 1, lines 7-9; Col. 43, lines 7-10) comprising:

a remote monitoring system coupled a piece of equipment within the manufacturing facility (Fig. 1; Col. 5, line 10 – Col. 6, line 65), said piece of equipment operable to produce build to order products (Col. 43, lines 7-10; Col. 16, lines 29-67);

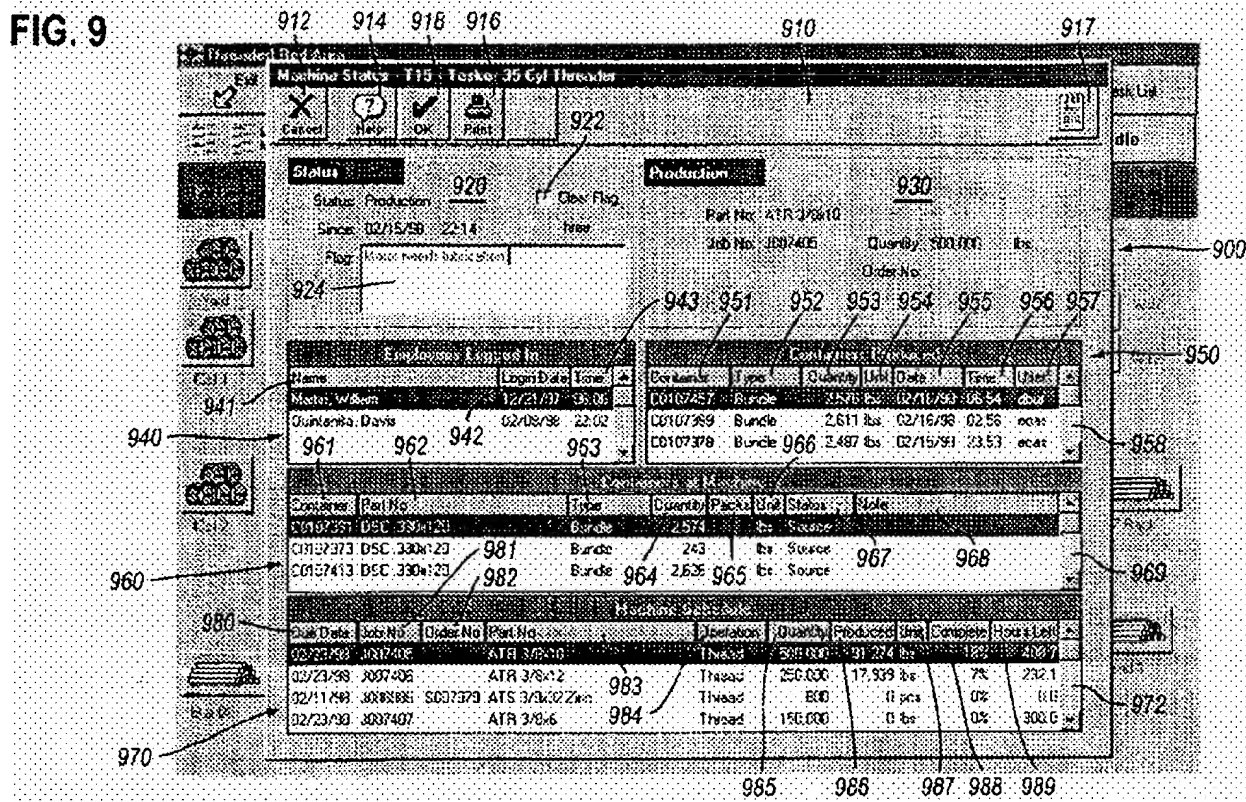
the remote monitoring system operable to determine an operating status of the piece of equipment relative to a ship criteria associated with producing the build to order products (Col. 19, line 8 – Col. 22, line 10; Col. 22, line 57 – Col. 23, line 4);

said remote monitoring system operable to consolidate real-time information relating to the operating status; and the remote monitoring system is communicatively coupled to a control center, said remote monitoring system operable to display substantially real-time status information associated with using the piece of equipment (Col. 33, lines 53-65), wherein the status information indicates if a particular piece of equipment is fully functional or if the particular piece of equipment is inoperable (Col. 12, line 34 – Col. 13, line 59).

Beatty teaches a shop floor control system (Col. 1, lines 7-9) for filling orders for customers (Col. 43, lines 7-10; Col. 16, lines 29-67), i.e., products are produced for customer orders and products are not built-to-stock. Examiner notes applicant's definition of build-to-order products on page 2, lines 13-20 of the instant specification.

The server system of Beatty may be located in the administrative offices of the factory and connected to the factory floor via a wide area network, an intranet, the Internet, or any distributed network, therefore, examiner respectfully submits that the server system of Beatty is remotely located (Cols. 5-6 and Fig. 1).

Examiner respectfully submits that the machine status screen (Fig. 9, below) clearly shows the operating status of the machine (Fig. 9, element 924, i.e., machine needs lubrication) relative to a ship criteria (Fig. 9, element 970, the machine schedule portion including percentage complete, Fig. 9, element 988).



Beatty goes on to teach how the machines are connected to the shop floor control system to provide real-time status information to the relational database (Col. 33, lines 53-65).

Referring to claim 2, Beatty discloses the system above, further comprising plural pieces of equipment operably associated with a location within the manufacturing facility (Col. 44, lines 23-56).

Referring to claims 4 and 18, Beatty discloses the system above, further comprising remote access terminals within the manufacturing facility operable to provide access to the remote monitoring system (Col. 6, lines 59-65).

Referring to claim 7, Beatty discloses the system above, further comprising a process monitor operable to monitor a process that uses the piece of equipment (Col. 45, lines 10-52).

Referring to claim 9 and 16, Beatty discloses the system above, further comprising logic operable to:

access a log to obtain information for monitoring the equipment (Col. 9, lines 16-21);
automatically determine if an error has occurred with a piece of equipment, based on the information obtained from the log (Col. 15, lines 10-20);
notify the control center of the error (Col. 31, lines 47-60); and
automatically updating the displayed operating status for the piece of equipment in the control center, in response to determining that the error has occurred (See Fig. 9, element 924 above; Col. 33, lines 53-65).

Referring to claims 14 and 21, Beatty discloses the method and the medium above, further comprising logic operable to associate a process with a piece of equipment to provide a process monitor (Col. 45, lines 10-52).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 5, 10, 12, 13, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,336,053 to Beatty as applied to claims 1, 8, 9, 15, and 16 above, further in view of U.S. Patent No. 5,586,021 to Fargher.

Referring to claims 10 and 17, Beatty teaches allocation of resources within the facility using a work-in-progress profile, and transferring finished goods from one machine to another machine (Col. 20, lines 23-31 of '053).

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Referring to claim 5, Beatty fails to disclose the system above, further comprising a simulator communicatively coupled to the remote monitoring system and operable to simulate allocating resources based on an error associated with a piece of equipment.

Referring to claims 10 and 17, Beatty fails to disclose the method and the medium above, further comprising logic operable to: determine a reallocation of resources within the facility using a WIP profiles; reallocate the resources in response to the equipment encountering the error.

Referring to claims 12 and 19, Beatty fails to disclose the method and the medium above, further comprising logic operable to automatically reallocate resources upon determining an error associated with a malfunctioning piece of equipment.

Referring to claims 13 and 20, Beatty fails to disclose the method and the medium above, further comprising the logic operable to route product to a different portion of the manufacturing facility in response to determining the error.

However, Referring to claims 5, 10, 12, 13, 17, 19, and 20 Fargher discloses a method and system for production planning (Title of '021), using computer integrated manufacturing software (i.e. logic) (Col. 4, lines 8-16 of '021) comprising:

A planner to input information such as the progress of lots within the shop and status of the work in progress (WIP) (Col. 4, lines 28-29; Col. 5, lines 6-12; Col. 2, lines 22-53 of '021)

The planner system may interact with a simulator in two distinct modes.

First, the planner may provide a static work release plan, generated using some initial factory status, which provides the simulator with a work release time table.

Second, the planner may provide a dynamic release plan (i.e. allocation of resources), which is updated in response to simulated events (such as machine failure, i.e. simulation based on error of equipment) during simulation execution (Col. 6, lines 54-67 of '021).

Fargher utilizes a plan representation which has been chosen to model the manufacturing environment in enough detail to achieve the planning functions, while allowing incremental updates due to replanning (i.e. reallocation of resources in response to the equipment encountering the error) (Col. 7, lines 13-18 of '021).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the system of Beatty to operate with the computer integrated manufacturing software of Fargher, because with the method of Fargher solutions which appear unpromising at an early stage in the search are quickly discarded, whereas those which appear more promising are more thoroughly searched. Another advantage is that 'disjoint' plan representations, in which no resources may be available for an extended period of time due to factory shut-down, do not prevent new work from being planned, as long as sufficient processing capacity exists within the plan representation (Col. 2, line 63 – Col. 3, line 5 of '021).

Response to Arguments

12. Applicant's arguments with respect to claims 1, 2, 4-10, and 12-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents or publications are cited to further show the state of the art with respect to systems for build to order products including real-time monitoring of the status of manufacturing equipment within a manufacturing facility, said status determining whether the equipment is functional or inoperable.

U.S. Patent No. 5,255,197 to Iida (Col. 2, lines 17-47; Col. 6, lines 18-45).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (703) 305-7798. The examiner can normally be reached on Monday-Friday from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard, can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

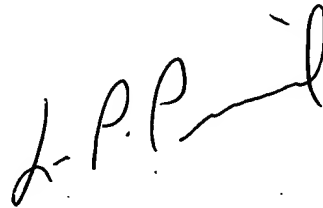
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

SPS

Sean P. Shechtman

October 24, 2003

A handwritten signature in black ink, appearing to read "L. P. Picard", with a stylized flourish at the end.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100